

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants: Miri Seiberg et al.

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Examiner: Yong S. Chong

For : SOY DEPIGMENTING AND SKIN CARE COMPOSITIONS

**DECLARATION OF MIRI SEIBERG, PH.D. UNDER 37 C.F.R. §1.132**

I, Miri Seiberg, am a Distinguished Research Fellow in the Skin Research Center at Johnson & Johnson Consumer Companies, Inc. My education includes a Ph.D. in Molecular Biology from The Weizmann Institute of Science, Rehovot, Israel, in collaboration with Princeton University, Princeton, NJ and a B. S. in Life Sciences from Tel-Aviv University, Tel-Aviv, Israel. My curriculum vitae is attached hereto as Exhibit 1.

1. Proteins are defined by both (1) their chemical structure, which includes a sequence of amino acids residues (see in e.g. Biochemistry, A. L. Lehninger, 1975, p. 95) (2) their secondary and tertiary structure, and (3) their biological function. A protein's biological function or activity requires the presence of both its chemical structure and conformation.

2. Proteins are said to be "denatured" when their physical and physiological properties are changed such that they lose their activity. Such change is generally due to a change in a protein's chemical secondary or tertiary structure and/or conformation. Protein denaturation and the consequent loss of biological activity are described in biochemistry textbooks (e.g. Biochemistry, A. L. Lehninger, 1975, p.62-63).

3. Isoflavones are a subclass of the flavonoids, a large family of plant-derived polyphenolic compounds that demonstrate diverse biological activities (see e.g. in Yang et al, 1997; Kuntz et al., 1999).

4. As indicated in paragraphs 1-3 above, Isoflavones are different in their chemical structure from proteins. Therefore, proteins could be denatured and lose their biological

activity, while isoflavones, not being proteins, do not have secondary and tertiary structure, and therefore cannot undergo denaturation.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Miri Seiberg, PhD

12/13/10

Date 12/13/10